IN THE CLAIMS

Please cancel claims 1, 2, 15, 32 and 33 without prejudice.

Please amend claims 3, 4, 5, 14 and 16 as follows:

1.   (Canceled)

2.   (Canceled)

3.   (Currently Amended) ~~The method of claim 2,~~ A method of simulating connection characteristics of a network, comprising:

        providing a driver capable of accessing a stream of network packets;

        calculating a send time for each of the network packets and attaching the respective send time to the corresponding packet;

        sequencing the network packets in a queue until the respective send times to simulate a desired propagation connection characteristic;

        deleting the send time from each network packet when the packet is removed from the queue; and

        altering the stream of network packets to simulate an additional connection characteristic of the network;

        wherein the propagation connection characteristic is at least one of: (a) bandwidth; (b) transmission delay;

        wherein the additional connection characteristic of the network is at least one of: (a) loss of a network packet; (b) fragmentation of a network packet; (c) reordering of at least two network packets; (d) duplication of a network packet; (e) network address translation of a network packet having an original network address.

4.   (Currently Amended) ~~The method of claim 2,~~ A method of simulating connection characteristics of a network, comprising:

providing a driver capable of accessing a stream of network packets;

calculating a send time for each of the network packets and attaching the respective send time to the corresponding packet;

sequencing the network packets in a queue until the respective send times to simulate a desired propagation connection characteristic;

deleting the send time from each network packet when the packet is removed from the queue; and

altering the stream of network packets to simulate an additional connection characteristic of the network;

wherein the propagation connection characteristic is at least one of: (a) bandwidth; (b) transmission delay;

wherein simulating a desired bandwidth comprises:

determining a length of a network packet;

calculating the send time for the network packet using the network packet length to simulate the desired bandwidth.

5.   (Currently Amended) ~~The method of claim 2,~~ A method of simulating connection characteristics of a network, comprising:

providing a driver capable of accessing a stream of network packets;

calculating a send time for each of the network packets and attaching the respective send time to the corresponding packet;

sequencing the network packets in a queue until the respective send times to simulate a desired propagation connection characteristic;

deleting the send time from each network packet when the packet is removed from the queue; and

altering the stream of network packets to simulate an additional connection characteristic of the network;

wherein the propagation connection characteristic is at least one of: (a) bandwidth; (b) transmission delay;

wherein simulating a desired transmission delay comprises adding the desired transmission delay to the send time.

6. (Original) The method of claim 3, wherein altering the stream of network packets to simulate the network address translation of the network packet comprises:

generating a simulated network address for each new connection; and

mapping the original network address to the simulated network address for each network packet.

7. (Original) The method of claim 6, wherein the simulated network address is generated randomly.

8. (Original) The method of claim 3, wherein altering the stream of network packets to simulate the loss of a network packet comprises:

determining a packet dropping frequency; and

deleting the network packet at the packet dropping frequency.

9. (Original) The method of claim 3, wherein altering the stream of network packets to simulate the fragmentation of the network packet comprises:

determining a packet fragmentation frequency;

separating the network packet into a plurality of new network packets at the packet fragmentation frequency;

dividing data contained in the network packet; and

distributed the divided data between the new network packets.

10. (Original) The method of claim 9, further comprising creating headers for the new network packets.

11. (Original) The method of claim 9, wherein the divided data is distributed disproportionately between the new network packets.

12. (Original) The method of claim 3, wherein altering the stream of network packets to simulate the reordering of at least two network packet comprises:

determining a packet reordering frequency; and

changing an order of the at least two network packets within the network packet stream at the packet reordering frequency.

13.   (Original) The method of claim 3, wherein altering the stream of network packets to simulate the duplication of the network packet comprises:

determining a packet duplication frequency; and

generating a copy of the network packet at the packet duplication frequency.

14.   (Currently Amended) ~~The method of claim 2,~~ A method of simulating connection characteristics of a network, comprising:

providing a driver capable of accessing a stream of network packets;

calculating a send time for each of the network packets and attaching the respective send time to the corresponding packet;

sequencing the network packets in a queue until the respective send times to simulate a desired propagation connection characteristic;

deleting the send time from each network packet when the packet is removed from the queue; and

altering the stream of network packets to simulate an additional connection characteristic of the network;

wherein the propagation connection characteristic is at least one of: (a) bandwidth; (b) transmission delay;

wherein altering the stream of network packets comprises changing a network address of each client connection.

15.   (Canceled)

16.   (Currently Amended) ~~The method of claim 15,~~ A method of simulating connection characteristics of a network, comprising:

providing a driver capable of accessing a stream of network packets;

calculating a send time for each of the network packets and attaching the respective send time to the corresponding packet;

sequencing the network packets in a queue until the respective send times to simulate a desired propagation connection characteristic;

deleting the send time from each network packet when the packet is removed from the queue; and

altering the stream of network packets to simulate an additional connection characteristic of the network;

wherein the driver is implemented in an intermediate layer between an upper layer and a lower layer;

wherein the upper layer processes the network packets and the lower layer places the network packets onto a physical media of the network.

17. (Canceled)

18. (Previously Presented) The method of claim 6, wherein the mapping is performed using a two-way mapping table.

19. (Original) The method of claim 18, wherein the two-way mapping table is a two-way hash table.

20. (Original) The method of claim 19, wherein the mapping uses a two-way output hash table, a two-way input hash table and a hash information repository.

21. (Original) The method of claim 18, wherein the mapping uses a two-way output mapping table if the network packet is being transmitted and a two-way input mapping table if the network packet is being received.

Claims 22-38. (Canceled)

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